

ACLAIRA® FACILITATES WATER TREATMENT WITH IOTIZE



CONTRÔL & SUPERVISION WITH SMARTPHONE APPLICATIONS

MAY 2025



For decades, industry has offered advanced filtration membranes capable of removing particles, microbes and chemical contaminants, making river and pond water drinkable. However, these systems often remain inaccessible to regions that need them most.

Michel Farcy recognized this crucial lack of solutions to a problem that is nevertheless essential to life. In 2015, he created the company Aclaira® from an initial project with the Carmes Déchaux and the Cheikh Anta Diop University of Dakar, Senegal. Today, the company offers four product ranges capable of removing contaminants ranging from suspended solids to arsenic.

Aclaira® strives to respond to the realities of regions where its products will be used, emphasizing the robustness of the equipment and its ease of use. Working with design and manufacturing partners,

The challenge of electronics in filtration systems

Initially, Aclaira® avoided electronics in its products to avoid complicating maintenance tasks and compromising the robustness of the equipment.

However, some processes, such as backwashing filtration membranes, required electronic control and lead to the addition of a PLC and an LCD screen in the designs. This increased the cost of the products, reinforced Aclaira®'s dependence on suppliers, and reduced its control of its technology. How to regain control? Michel Farcy consulted a colleague, Francis Lamotte, founder of the company IoTize. The solution came in the form of data acquisition and control modules called "TapBus".



AN INNOVATIVE, ROBUST & ACCESSIBLE SOLUTION

TapBus modules manage communication, cybersecurity, power supply, data inputs and outputs that are required in any system, yet they adapt easily with minimal coding in Java.

The modules allow communication with **smartphone applications** via **Bluetooth** and **NFC**, as well as connecting to the **GSM network** for remote supervision. On site, when a user connects using NFC, the Aclaira app launches automatically and can be used to configure, test and control the system. With Wi-Fi or Ethernet, TapBus can also connect to a 3G/4G router so that technicians can supervise the equipment remotely anywhere in the world.

Thanks to the **App Creator** software, designers can easily create apps for system configuration and supervision with little expertise and without a lot of coding.

TapBus chez Aclaira® : simplification et économie

Thanks to TapBus, Aclaira® was able to develop a new control system in just 12 months, eliminating PLCs and LCD screens in their designs.

Today, user simply connect their smartphone to the Bluetooth of the Aclaira® equipment. The mobile application allows them to access the system settings and controls and guides them through the configuration and use of the system.

This solution has several major advantages:

- **Cost reduction:** Replacing PLCs and screens has reduced the cost of each system.
- **Ease of use:** Mobile apps include maintenance and installation routines in the form of intuitive checklists.
- **3. Technological autonomy:** IoTize's solution customizes easily, allowing Aclaira® to regain control of its technologies.

Outlook: portable systems for emergency interventions

Building on their success, Aclaira® is considering developing portable filtration systems for emergency interventions such as floods and fires. These portable products will be designed to rapidly respond to the needs of firefighters and NGOs deployed in the field. Stay tuned...

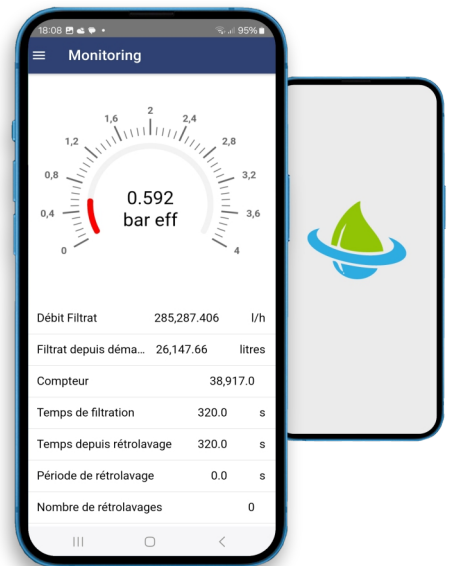
For more information, visit us at...

aclaira.com

iotize.com



Modules d'acquisition de données TapBus d'IoTize



Aclaira application mobile

IoTize™

960 ch. de la Croix Verte
38330 Montbonnot, France
+33 (0)4 76 41 87 99
contact@iotize.com

www.iotize.com